Telephone Switch

user's Manual

Please read this manual before using ISO 9001:2000 Certificate

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WARNING

THE SYSTEM MUST BE UNLOCKED BEFORE PROGRAMMING. USE EXTENSION 801 FOR UNLOCKING AND PROGRAMMING THE SYSTEM. THE SYSTEM WILL BE AUTO LOCKED AFTER PLACING THE HANDSET BACK ONTO THE HOOK SWITCH.

WHEN A FAILURE OCCURS WHICH RESULTS IN THE INTERNAL PARTS BECOMING ACCESSIBLE, DISCONNECT THE POWER SUPPLY CORD IMMEDIATELY AND RETURN THIS UNIT TO YOUR DEALER.

DISCONNECT THE POWER BEFORE DISCONNECTING THE TELECOM CONNECTION PRIOR TO RELOCATING THE EQUIPMENT, RECONNECT THE POWER LAST.

THE POWER SOCKET WALL OUTLET SHOULD BE LOCATED NEAR THIS EQUIPMENT AND SHOULD BE EASILY ACCESSIBLE.

TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.

PRECAUTION

Keep the unit from heating appliances and electrical noise generating devices such as flourescent lamps, motors and televisions. These noise sources can interfere with the performance of the Electronic Modular Switching System. This unit should be kept free of dust, moisture, high temperature (more than 40 C/104F) and vibration, and should not be exposed to direct sunlight. Never attempt to insert wires, pins, etc. into the vents or other holes of this unit. If there is any trouble, disconnect the unit from the telephone line. Plug the telephone directly to the telephone line. If the telephone operates properly, do not reconnect the unit to the line until the trouble has been repaired. If the telephone does not operate properly, chance are that the trouble is in the telephone system, and not in the unit.

Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth.

1 BRIEF INTRODUCTION & FEATURES

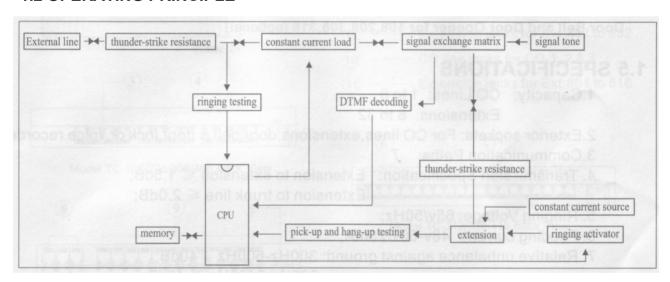
PABX (Private Branch Exchange) a Telephone Exchange operated within an organisation, used for switching calls between internal lines and PSTN lines. This PABX is designed to provide a low cost professional telephone switching system. Up to 6 external telephone lines and up to 32 internal extensions can be connected.

1.1 EXTERNAL CALLER ID.

This PABX is capable of receiving external FSK or DTMF Caller ID send from the local telephone company. In order for the Caller ID to work, the user must subscribe to the Local Telephone Company for the service.

External Calls with telephone number of caller transferred to the internal extensions telephone. The internal extension telephone must have DTMF Caller ID detection capabilities.

1.2 OPERATING PRINCIPLE



1.3 PRODUCT INSTALLATION RECOMMENDATION

Caution: The Power Plug should be installed in the socket outlet which is the equipment and easily accessible.

It is recommended to avoid installing the product in the following places:

- * Avoid places, where shocks or vibrations are frequent and strong
- * Avoid dusty places
- * Avoid places, where water or oil may come into contact with the product
- * Avoid places near high-frequency generating devices such as micro wave ovens, sewing machines or electric welders.
- * Avoid places within 2 meters of television sets
- * Avoid places where the environment is hot and there is no air movement

1.4 MAIN FEATURES

Operator Attendant Mode -- allows an operator or one designated extension to answer all incoming calls.

Auto-Attendant Mode -- allows the external caller to dial the desired extension or operator directly according guide of OGM .

Call Transfer-- allows the extension to transfer an external call to another EXT.

Call Pick Up -- allows a non ringing extension to answer a call to another extension.

Music on Hold -- with Internal or External Source Option.

External CO Line Ringing assignment -- any extension(s) can be assigned to ring, when there is an external call.

Change Extension Number -- any extension can be allocated any extension number in the rang from 100 to 999.

Call Restriction -- controls what numbers an extension can dial

Limited Call Duration -- the system disconnects outgoing calls when the set time expires.

Three-way Conference -- 2 internal callers can speak to an external caller.

Internal Call -- call from one extension to another (free of charge)

Call Forwarding -- user can program their extension to forward an external or internal call to another telephone extension.

Voice Recorder (optional)

Door Bell and Door Opener for 108,208,308,316 (optional)

1.5 SPECIFICATIONS

1. Capacity: CO Lines: 1 to 6

Extensions: 8 to 32

- 2.Exterior sockets: For CO lines, extensions, door bell & door lock or voice recorder
- 3. Communication Paths: 7
- 4. Transmission Specification: Extension to extension 1.5dB;

Extension to trunk line 2.0dB;

- 5. Ringing Voltage: 65v/50Hz;
- 6. Feeding current: 48v-60v/25mA;
- 7. Relative unbalance against ground: 300Hz-600Hz 40dB;

600Hz-3400Hz, 46dB;

- 8. Dialing mode: DTMF
- 9. Signal tone:

CO Line: tone from local telephone company;

Internal dialing tone: 450Hz, continuous wave;

Extension echo signal: 450Hz, 1 second on and 4 seconds off;

Extension busy signal: 450Hz, 0.3 second on, 0.3 second off;

Extension confirmation signal: 450Hz, 1 second on;

Extension error signal: 450Hz, 0.3 second on, 0.3 second off;

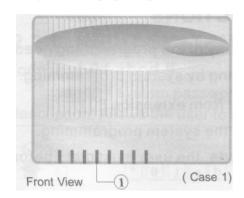
10. Power supply: AC220V/110V± 10%

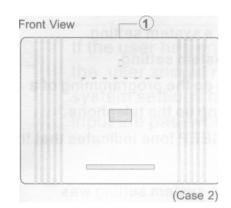
Power consumption: <15VA

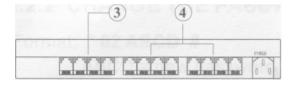
11. Operational environment: Temperature: 32F-104F(0 C-40 C);

Relative humidity -90%

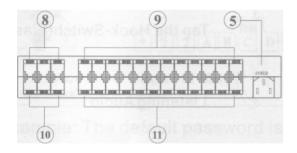
1.6 LAYOUT OF THE PABX







Model TC-108/208/308/408 Back View



Model TC-424/432/624/632 Back View

Left View

Name of parts:

Led for power supply and working state of CO lines & extensions

Power supply switch

CO line and door bell port

Extension jacks for Ext.801 to 808

Power supply jack

CO Line jacks for CO 1 to 4

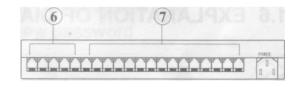
Extension jacks for Ext.801 to 816

CO line jacks for CO 4, 5 & 6

Extension jacks for Ext.817 to 832

CO line jacks for 00.1, 2 & 3

Extension jacks for Ext.801 to 816



Model TC-312/316/416 Back View

1.7 CONNECTING PROCEDURES

- 1.7.1 Connect external CO lines to the corresponding CO line ports on the unit
- 1.7.2 Connect internal extensions according to the indicated extension positions
- 1.7.3 Make sure to avoid short circuit

2 SYSTEM PROGRAMMING

2.1 GENERAL PROGRAMMING INSTRUCTIONS

- 2.1.1 This system has a default factory setting. If any of the programming needs to be changed, the user can change the setting by system programming.
- 2.1.2 System programming can only be performed from extension 801;
- 2.1.3 The user should input the password to enter the system programming.
 If extension 801 is in Direct External Dial Mode, the user must dial * before dial * 01 to enter the password.
- 2.1.4 Press * to start programming a system setting.

Enter the code and parameters for changing a system setting.

Press # to complete the programming of a system setting.

To correct a wrong system setting, press * to do the programming of a system setting again. There is no need to hang up the telephone.

2.1.5 After programming a system setting, a long BEEP tone indicates that the system setting has been successful.

A series of short BEEP tone indicates that the system setting was unsuccessful. Please check or reset the unit.

2.1.6 EXPLANATION OF DIAGRAM



Lift up Receiver(Pick Up)



Place Handset(Hang Up)



Button(Dialing)



Tap the Hook-Switch(Flash)

Listening Audio

Indicative abstract

2.2 PASSWORD

2.2 1 INPUT SYSTEM PASSWORD

Format: * 01 abcd #

abcd = system password.

Description: Allows the user to input the password to enter into the system programming.





If the user has entered into the programming mode by password, the user should not hang up extension 801 until all the desired system settings have been modified, otherwise the user has to input the password again to enter into the programming mode.

2.2.2 CHANGE THE PASSWORD

Format: * 02 ABCD #

ABCD = new password (Default password = 1234)

Description: Change old password to new password



Example: The default password is 1234 We suggest to change the password before using the PABX.

If the user wants to change the password to 5678, the user should input * 01 1234 # to enter the system, then input * 02 5678# to change the password to 5678.

Suppose the user needs to change the password again to 1111, the user should input * 01 5678 # to enter the system, then input * 02 1111 # to change the password to 1111.

2.3 EXTERNAL (CO) LINE CONNECTION ASSIGNMENT

Format: *3abcdef#

abcdef = CO line port number (Default Setting = 1 to 6)

Description: Assigns which external (CO) line is connected to which CO line port.

Example: The company has three external CO lines. To connect external CO line 1 to CO line port number 1, CO line 2 to port 2 and CO line 3 to port 4.





- * Normally the order to select the CO line ports is from port one to port two, port three ... one by one. For some situations, the user could ignore one port and jump from port three to port four.
- * For the CO lines, it is recommended to connect the incoming CO lines to the high-frequently-used CO port lines and the outgoing CO lines to the low position CO port lines.

2.4 RINGING EXTENSION ASSIGNMENT FOR EXTERNAL(CO) LINE

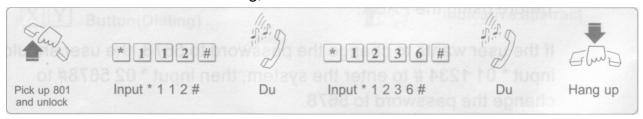
Format: * 1 m abcd #

m = CO Line port number

abcd = Last digit of extension port (Default setting = Ext.801 to Ext.804)

Description: The user can select which extension(s) must ring, when there is an incoming call on an external CO line

Example: Assign Ext. 802 to ring, when there is an external call on CO line 1, assign Ext. 803 and 806 to ring, when there is an external call on CO line 2



- * The CO line port must be in operator mode
- * The ringing extensions can only be assigned among extensions 801 to 808

2.5 EXTERNAL DIALING MODE ASSIGNMENT

2.5.1 EXTERNAL DIALING MODE FOR SPECIFIC EXTENSION ASSIGNMENT

Format: * 8 abc n #

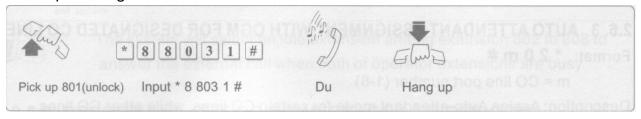
abc = Extension number;

n = 0 = access to CO line by dial 0 or tap the switch-shook. (Default mode is n = 0)

n =1 = direct access to CO line

Description: The extension can be programmed to have access to the external CO line by dial 0 first or by tap the Hook Switch (n=0). or to have direct access to external CO line (n =1)

Example: Assign extension 803 to have direct access to the external CO line.



Format: * **abc** (abc = extension number)

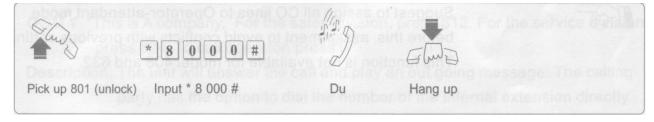
Description: The user should dial * to make internal call when extension is in Direct External Dial Mode:

2.5.2 DIRECT EXTERNAL DIAL MODE CLEAR

Format: * 8 000 #

Description: The extension is programmed to have access to the external CO line by .

Dial 0 first or by tap the Hook Switch.



2. 6 ATTENDANT MODE ASSIGNMENT

2.6.1 OPERATOR ATTENDANT ASSIGNMENT (DEFAULT SETTING)

Format: * 21#

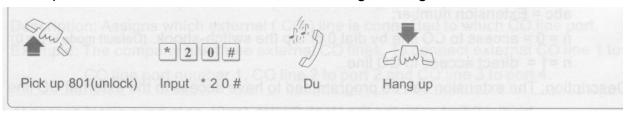
Description: Specific ringing extension will ring when CO line is received, pick up the extension to answer the call.



2.6.2 AUTO ATTENDANT ASSIGNMENT WITH OUTGOING MESSAGE(OGM)

Format: * 2 0 #

Description: The external caller will hear Out Going Message, none of extensions will ring.



2.6.3 AUTO ATTENDANT ASSIGNMENT WITH OGM FOR DESIGNATED CO LINES

Format: * 2 0 m #

m = CO line port number (1-6)

Description: Assign Auto-attendant mode for certain CO lines, while other CO lines remain in Operator-attendant Mode.

Example: Assign CO 2 to Auto-attendan, and assign remaining CO lines to operator attendant mode.





Suggest to assign all CO lines to Operator-attendant mode before this assignment to avoid conflicts with previous setting. This function is not available for model 408 and 632.

2.6.4 OPERATOR NO 1 ASSIGNMENT FOR AUTO ATTENDANT MODE

Format: * 2 5 abc #

abc = extension number (Default setting = Ext. 802)

Description: Assign an extension to be Operator No 1 for Auto Attendant Mode.

When external caller dial 0, his call will be transferred to operator.

Example: Assign extension 807 to be Operator No.1



2.6.5 OPERATOR NO 2 ASSIGNMENT FOR AUTO ATTENDANT MODE

Format: * 2 6 abc #

abc = extension number (Default setting = Ext. 803)

Description: Assign an extension to be Operator No 2 for Auto Attendant Mode.

The incoming call will be auto transferred to Operator No. 2, if Operator No.1 is busy.

Example: Assign extension 806 to be Operator No. 2





The system will select an idle extension among extension 802 to 808 to answer the external call when both of operator extensions are busy.

2.6.6 RECORD THE OUT GOING MESSAGE (3 PIECE OGM)

Format: * 2 2 N #

N = 1 = OGM 1 = Maximum 12 seconds

N = 2 = OGM 2 = Maximum 4 seconds

N = 3 = OGM 3 = Maximum 4 seconds

Description: Allows the extension assigned as an operator or manager to record up to 3 outgoing voice message. This message is played when a external caller accesses the DISA feature.

EXAMPLE:

OGM 1: "This is A company, For the sales division, press 812. For the service division, press 824. To call operator, press 0 "

Description: The unit will answer the call and play an out going message. The calling party has the option to dial the number of the internal extension directly e.g.803 or dial 0 for the operator.

OGM 2: " We are sorry. The line is currently busy, you could dial other extension number, if you want to call the operator, press 0 "

Description: The unit will play out going message in the case of desired extension is busy. If the external caller does not enter any correct extension number within a certain period, then the call will be released.

OGM 3: "We are sorry. The line is no answer, you could dial other extension number, if you want to call the operator, press 0 "

Description: The unit will play an out going message in the case of desired extension is no answer after the caller dial the extension number within a certain period. If the external caller does not enter any other correct extension number within a certain period, then the call will be released.

2.6.7 PLAY THE OUT GOING MESSAGE

Format: * 2 3 N #

N = 1 = Play OGM 1 N = 2 = Play OGM 2N = 3 = Play OGM 3.

Description: To listen to the Out Going Message (OGM) recording and to test the quality of the telephone.

Please refer to the schematic of Switch at the bottom of unit below:



- * There is has Record switch at the bottom of the unit, you must to turn the switch to ON before you want to record outgoing message. Please to turn the switch to OFF after recording has been finished.
- * "DU" is heard at the beginning of the record and another "DU" to end of the recording.
- There is no limit on the number of times a message can be recorded. New message overwrite old messages.

2.7 INTERNAL OR EXTERNAL MUSIC ON HOLD

2.7.1 CONNECTING EXTERNAL MUSIC ON HOLD (Optional)

(Only available for model 208, 308, 408)

This system is integrated with internal Music On Hold. Just plug the external Music On Hold source into the external Music On Hold jack and the system will play the external Music On Hold instead of the internal Music On Hold.

Some external music devices may generate a tone when a radio interference appears on the signal line or AC port respectively. Those units will revert to normal operation when the radio interference stops.

2.7.2 LISTEN TO INTERNAL OR EXTERNAL MUSIC ON HOLD

Format: * 2 4 #

Description: Allows the user to listen to the internal or external Music On Hold melody for a short period and to test the quality of the telephone.

2.8 SELECT SYSTEM LINE BREAK TIME RANGE FOR INTERNAL FLASH RECOGNITION

Format: * **8 1 m** #

m = 1 = 750 msm = 2 = 1000 msm = 3 = 1200 ms

m = 4 = 1500 msm = 5 = 2000 ms

Description: When the user presses the <Flash Key> or taps the Hook Switch, the telephone. generates a line break. If the telephone generated line break time is less or equal to the selected system line break time range, then it is recognized as an internal flash. If the telephone generated line break time is greater than the selected system line break time range, then it is recognized as an internal line release (same as going On-Hook)

2. 9 CALL RESTRICTION-CLASS ASSIGNMENT

2.9.1 CALL RESTRICTION CLASS ASSIGNMENT FOR SPECIFIC EXTENSION

Format: * 5 6 abc n #

abc = Extension number;

n = 0 = Permit to dial Authorized number only

n = 1 = Restricts to dial the calls in Restriction Class 1

n = 2 = Restricts to dial the calls in Restriction Class 2

n = 3 = Restricts to dial the calls in Restriction Class 3

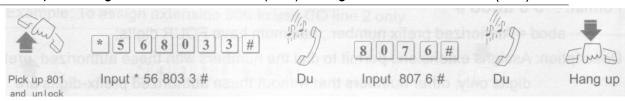
n = 4 = Restricts to dial the calls in Restriction Class 4

n = 5 = Restricts to dial the calls in Restriction Class 5

n = 6 = Permits to dial Internal call and receive the call only

Description: Assigns the outgoing calling right for an extension.

Example: Assign Ext. 803 to class 3 (n=3), assign Ext.807 to class 6 (n=6).



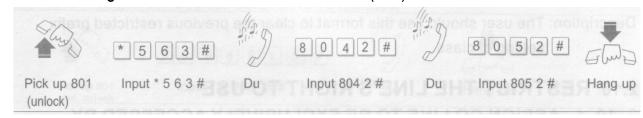
2.9.2 CALL RESTRICTION CLASS ASSIGNMENT FOR ALL EXTENSIONS

Format: * 5 6 n #

n = same as paragraph 2.9.1

Description: Assigns the outgoing call right for all extensions.

Example: Assign Ext.804 and 805 to class 2 (n=2), and all other extensions to class 3 To save time, the user can set all the extensions to class 3 (n=3) first, then assign extension 804 and 805 to class 2 (n=2)



2.9.3 CALL RESTRICTION CLASS GROUP ASSIGNMENT

Format: * 5 n abcd #

n = same as paragraph 2..1 (1 to 5) abcd = Prefix of number t be restricted

Description: Restricts to dial the numbers that with these prefix-digits...

Example: Restricts to dial the numbers with prefix 573 and 8 that in restriction class 2.



- * The restricted prefix can have a maximum of 4 digits;
- *A maximum of 20 groups of restricted prefixes can be assigned to each class;

2.9.4 CALL RESTRICTION CLASS GROUP ASSIGNMENT CLEAR

Format: * **5 n** #

n = same as paragraph 2.9.1 (1 to 5)

Description: The user should use ehis format to clear the previous restricted prefix setting of class.

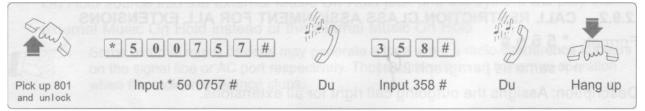
2.9.5 AUTHORIZED DIALING NUMBER ASSIGNMENT

Format: * 5 0 abcd #

abcd = Authorized prefix number ,maximum have FOUR digits;

Description: Assigns extensions permit to dial the numbers with these authorized prefix digits only, other numbers that without these authorized prefix-digits are restrict to dial.

Example: Permit Ext. to dial authorized numbers with prefix "0757" or "358" only



2.9.6 AUTHORIZED DIALING NUMBER ASSIGNMENT CLEAR

Format: * 5 0 #

Description: The user should use this format to clear the previous restricted prefix setting of class.

2.10 RESTRICT THE LINE'S RIGHT TO USE

2. 10. 1 ASSIGN CO LINE TO BE EXCLUSIVELY ACCESSED BY AUTHORIZED EXTENSION(S). FOR OUTGOING CALLS

Format: * 4 1 M abc #

M = CO line port number (1-6),

abc = Extension number.

Description: Assign CO line to be exclusively accessed by authorized extension(s) for outgoing calls. Even if the CO line is free, other extensions can not access this CO line for outgoing calls.

Example: Assign CO line 2 to be exclusively accessed by Ext. 803 and Ext. 807:



2.10.2 ASSIGN EXTENSION(S) TO ACCESS ONLY A DESIGNATED CO LINE FOR OUTGOING CALLS

Format: *4 2 M abc #

M = line port number (1-6);

abc= extension number;

Description: Assign specify extension to use only a designated CO line for external calls.

Even if other CO lines are free, this extension can not access them for external calls

Example: To assign extension 806 to use CO line 2 only.



2.11 LIMITED CALL DURATION OF EXTERNAL CALL 2.11.1 LIMITED CALL DURATION OF SPECIFIC EXTENSION

Format: * 9 abc mn #

abc = Extension number;

mn = Call duration that can be set from 1 minute to 99 minutes

Description: The system disconnects outgoing calls when the set time expires.

Example: Assigns Ext 805 call duration to 15 minutes;



2.11.2 LIMITED CALL DURATION OF SPECIFIC EXTENSION CLEAR

Format: * 9 abc #

abc = Extension number

Description: Permits the user to make calls without a time limit.



- * The actual limited call duration has about 20seconds discrepancy from the duration what you have been set, in order to counteract the dial time;
- * The maximum call duration can be set is 99 minutes;

2.12 EXTENSION NUMBER ASSIGNMENT

2.12.1 CHANGE EXTENSION NUMBER

Format: * 7 abc ABC #

abc = Previous extension number

ABC = New extension number

Description: Allows the user to change the number of extensions;

Example: Change extension number "803" to "333", and "804" to "128"





Available extension numbers are between 100 and 999, the new extension number cannot as the same as the current extension number.

2.12.2 RESTORE THE DEFAULT EXTENSION NUMBERS

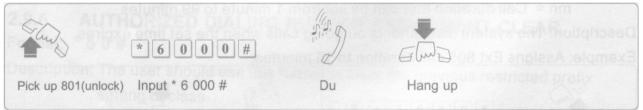
Format: * 7 000 #

Description: We suggest to use this format to restore all extension numbers before to change the most of extension numbers to avoid reduplicate number.

2.13 SYSTEM DATA DEFAULT SETTING

Format: * 6 000 #

Description: This will re-initialize the system-programmed, if all the programmed data is cleared, the system will be reset, using the default settings.





This program will not restore default extension number, and do not change the CO line connection assignment.

DEFAULT VALUES

Pass Word ------ 1234
Attendant Mode ----- Operator Attendant
Ringing Extension ----- 801 to 804

CO Line connection ----- 1 to 6

Extension numbers ----- 801 to 832

Outward Way ----- Dial 0 or tap the Hook Switch

3 OPERATING INSTRUCTION

3.1 EXTERNAL CALL

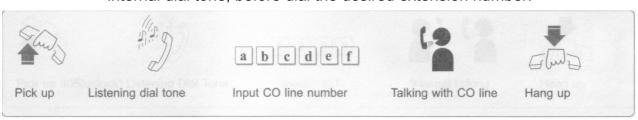
An extension can be in two different modes.

When in Direct External Dial mode, the extension is connected to free external line directly.

When in Non Direct Dial mode, the extension can get an external line by dial 0 or by tapping the hook-switch.

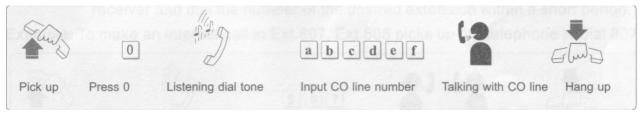
3.1.1 DIRECT EXTERNAL DIALING

Description: When in Direct External Dial mode, the extension will hear external dial tone after lift the receiver. The external number can be dialed directly now. The user can press the REDIAL button to redial the last dialed number. To make an internal call, the user must lift the handset and dial * to get internal dial tone, before dial the desired extension number.



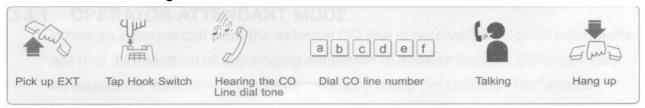
3.1.2 MAKE AN EXTERNAL CALL BY DIAL 0

Description: Lift receiver to get internal dial tone. Dial 0 within 5 seconds to get external dial tone, then dial the desired external number.



3.1.3 MAKING AN EXTERNAL CALL BY TAP THE HOOK SWITCH

Description: If the user prefers, and external line can be accessed by tapping the Hook Switch. The user must lift the handset to get internal dial tone, tap the Hook Switch to get external dial tone and then dial desired external number.



3.1.4 OUTGOING BY PREFERRED LINE

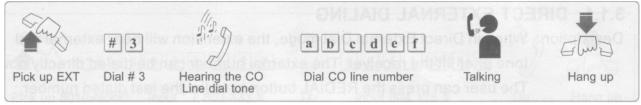
Format: # N

n = CO line port number = port No.1 to No.6

Description: A proprietary telephone user can select a desired CO line preference to make external calls.

Example: To make an external call via 003, lift the receiver to dial # 3 in a short period.

If busy tone is heard, that informs you external CO 3 is busy.



3. 2 INTERNAL CALL

An extension can make an Internal call to another extension by lift the receiver and dial the number of desired extension in a short time.

The user must to dial * to get internal dial tone before dial the desired extension number if his extension is in Direct External Dial Mode.

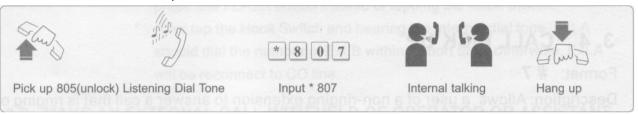
3.2.1 UNDER DIRECT EXTERNAL DIALING MODE

Format: * + abc

abc = desired extension number

Description: You need to dial * to get internal dial tone before dial the extension number;

Example: To make an internal call to Ext.807, Ext.805 picks up the telephone to dial * 807 within a short period.



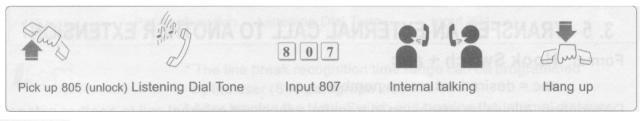
3.2.2 UNDER NON-DIRECT EXTERNAL DIAL MODE

Format: abc

abc = desired extension number

Description: An extension can make an internal call to another extension by lifting the receiver and dial the number of the desired extension within a short period.

Example: To make an internal call to Ext.807, Ext.805 picks up the telephone to dial 807.

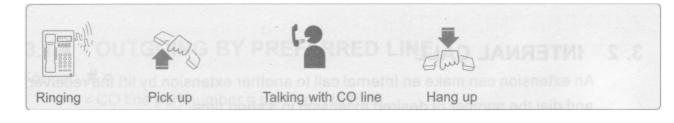




The ringing of an Internal call is different from the ringing of an external call.

3. 3 RECEIVING AN EXTERNAL CALL FROM THE CO LINE 3.3.1 OPERATOR ATTENDANT MODE

When an external call from the external CO line is received; assigned extensions will ring. Lift handset of any ringing extension to answer the call. Calls can also be answered from non-ringing extensions by using the Call Pick Up feature. If necessary, the extension that answered the calls, can forward the call to another extension.



3.3.2 AUTO-ATTENDANT MODE

Description: When an external call has been received from the external CO line; the unit will answer the call and play an Out Going Message. The calling party has the option to dial the number of the internal extension directly e.g.803 or dial 0 for the operator.



- * See paragraph 2.6.6
- * See paragraph 2.6.4 & 2.6.5

3. 4 CALL PICK UP

Format: #7

Description: Allows a user of a non-ringing extension to answer a call that is ringing on another extension.





If the extension is in Direct External Dial Mode, the user must to dial *# 7

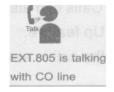
3.5 TRANSFER AN EXTERNAL CALL TO ANOTHER EXTENSION

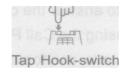
Format: Hook Switch + abc

abc = desired extension number

Description: Allows an extension to transfer a received external call to another extension;

Example: Ext.805 receives an external call. To transfer this call to Ext 807, Ext 805 must tap the hook-switch to get internal dial tone, then dial 807. During the transfer, the external caller is put on hold and receives Music on Hold. When Ext.807 lifts the receiver, the external caller is transferred, Music on Hold stops and the conversation can resume,











There are 4 different cases when A is transfers an External call to B:

- a) Ext.A doesn't hang up, Ext. B lifts the handset Communication between A and B is established. The external caller is put on hold with Music. Whoever hangs up (A or B), the system will transfer the external call to the other.
- Ext.A doesn't hang up, Ext.B doesn't answer in 25 seconds.
 Ext.A will be reconnect to the external caller and Ext. B will stop ringing,
- c) Ext. A hangs up and Ext.B lifts receiver to answer external call.
- d) Ext. A hangs up, but Ext. B doesn't answer the call in 25 seconds. The external caller will be transferred back to Ext. A. If Ext A does not answer the call in 25 seconds or it is busy, the external call will be lost.



- * The range for recognizing a Hook Switch tap generated line break as an internal flash can be programmed from 750ms to 2000ms. The user can press the FLASH button instead of tapping the Hook Switch.
- * After tap the Hook Switch and hearing the internal dial tone, Ext.A should dial the number of Ext.B within a short time, otherwise, Ext.A will be reconnect to CO line.

3.6 MAKE AN EXTERNAL CALL WITH HELP OF OPERATOR OR ASSISTANT

Format: Hook-Switch + abc

abc = desired extension number

Description: The operator or assistant can initiate an external call and then transfer the call to another extension.

Example: The operator Ext. 805 initiates an external call, then transfers the call to Ext. 801





- * The line break recognition time range can be programmed by the user (See paragraph 2.8)
- * After tapping the Hook Switch and hearing the internal dial tone, the operator should dial the extension number within a short time, otherwise, the operator will be reconnect to the external CO line.

3.7 PARTY CONFERENCE (BETWEEN 2 EXTS. AND 1 CO LINE)

Format: Hook-switch + * + abc

abc = desired extension number

Description: Allows an extension on an external call to add another extension for a 3 Party conference call;

Example: Extension 805 is talking with CO line, and 805 wants to transfer external call to 807 to build three parties conference





There are have two cases when Ext.A is transferring CO line call to Ext. B:

- * Ext. A does not hang up, Ext.B lifts the handset to answer the call.

 Ext.A, Ext. B and CO line will set up 3-parties conference. Whoever

 (A or B) is hangs up, the other party will be keep connecting with CO Line.
- * Ext. A does not hang up. Ext.B does not answer in 25 seconds, A will reconnect with CO line, while B will stop ringing.

3.8 THE EXTERNAL CALLER IS ON HOLDING

Format: Hook-switch + # 99

Description: When the user is on an external conversation, a Call Waiting tone from the Local Telephone Exchange informs the user, that there is another external call waiting.

The user can answer the waiting external call by tapping the Hook Switch to get internal dial tone and then by dialing # 99. That will put the first external caller on hold and connect the user to the second external caller. If the second external caller hangs up, the user will be reconnected to the first external caller.

Note: The user should apply for the Call Waiting feature from the Local Telephone Company first.

3.9 CALL FORWARDING

Format: # 0 abc

abc = extension number of destination

Description: Allows an EXT. user to transfer incoming calls automatically to another EXT.

Example: The user of Ext.805 has to go to another office (extension number is 807) for some business. He activate Call Forwarding on his extension so that all calls to Ext.805 are transferred to Ext.807 automatically.





To clear call forwarding assignment, the user must lift the receiver and then replace the receiver.

The system will clear the call forwarding assignment automatically after about four hours in the case the user forget to clear the assignment. Nothing can be heard on assigned extension and can not carry on any other operating until the assignment is cleared.

3.10 PRIORITY ACCESS AND MONITOR RECORD

3.10.1 PRIORITY ACCESS

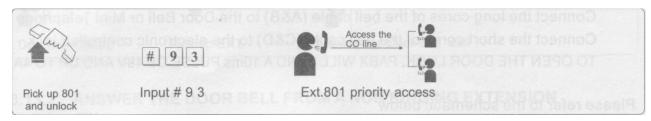
Format: # 9 n

n = CO line port number =1 to 6

Description: Allows user of Ext.801 to access a certain CO line even though other

people are using that CO line.

Example; Ext 801 access CO line 3 even if CO 3 is busy.





Only extension 801 has authority of priority access.

3.10.2 AUTO MONITOR RECORD (OPTIONAL)

(THIS FEATURE IS AVAILABLE FOR MODEL 108A,208A,308A&316A ONLY)

Description: You can connect Voice Recorder with our PABX by insert the signal line of Voice Recorder with port of Monitor on PABX, it will auto start to record desired extension or CO line once the line is used.

3.11 AUTOMATIC REPORTING OF EXTENSION NUMBER

Format: # 81

Description: Allows the user to know extension number by listening indication tones.

Example: Input #81 on Ext.803, you can hear 8 times of continuous BEEP tone, pause about 1.5 second, then another 10 times BEEP tone is play, pause about 1.5 second, the last 3 times of continuous BEEP tone is play. That inform you that the extension number is 803.

Description: 10 times of continuous BEEP tone = 0

If extension is in Direct Dial Out Mode, you must to dial * + # 81.



3.12 DOOR BELL & DOOR LOCK

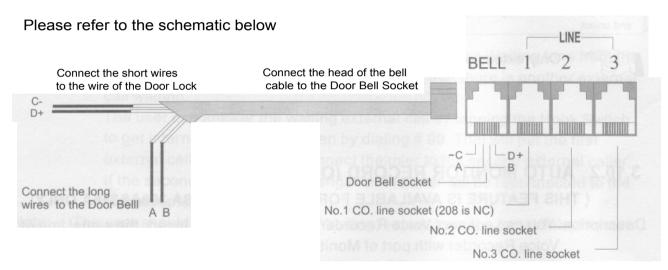
To meet the needs of our customers, two additional functions have been added

- * TALK-BACK DOOR BELL
- * ELECTRONIC CONTROLLED DOOR LOCK

3.12.1 CONNECTING DOOR BELL & DOOR LOCK TO THE PABX

Connect the head of the bell cable coming from the Door Bell & Door Lock to the Bell Socket at the back of the PABX.

Connect the long cores of the bell cable (A&B) to the Door Bell or Mini Telephone Connect the short cores of the bell cable (C&D) to the electronic controlled lock. TO OPEN THE DOOR LOCK, PABX WILL SEND A 10ms PULSE OF 48V AND UP TO 4A





- * If a Door Bell is required it should be purchased separately.
- * Electronic Controlled Door Lock can be purchased from lock shop or electronics store.

3.12.2 RINGING EXTENSION ASSIGNMENT FOR DOOR BELL

Format: * 14 abcd #

abcd = last digit of the ringing extension

Description: Assign the extensions that will ring when the door bell has been pressed. Example: Assign Ext.802, 803 & .807 to ring when the door bell has been pressed.



Description: If a visitor presses the door bell, the Ext.802,803,& 807 will ring at the same time. Any one of them can answer the door bell.

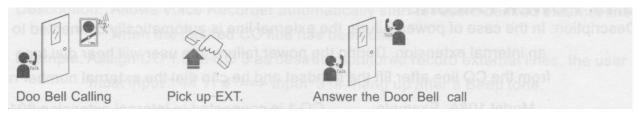
3.13 ANSWERING THE CALL FROM THE DOOR BELL

3.13.1 ANSWERING THE DOORBELL CALL FROM A RINGING EXTENSION

Format: Pick up the ringing extension

Description: A visitor on the door presses the Door Bell. The designated extension rings.

The ringing extension lifts the receiver and talks to the visitor at the door.



3.13.2 ANSWER THE DOOR BELL FROM A NON RINGING EXTENSION

Format: #7

Description: Allows to answer Door Bell from any non-ringing extension. If the non ringing extension is in Direct External Dial mode, the user must dial *#7

to answer the Door Bell. (Same as Call Pick Up)



3.14 TO OPEN THE LOCK

3.14.1 TO OPEN THE DOOR LOCK AFTER ANSWER THE DOOR BELL

Format: Tap the Hook Switch + # 00

Description: This is to open the door after speaking with external visitor at the door.



3.14.2 TO OPEN THE DOOR LOCK REMOTELY

Format: #4

Description: The door can be opened by any extension at any time.



3.14.3 EXTENSION CALL TO DOOR BELL

Format: #5

Description: Allows to call Door Bell from extension.

If the extension is in Direct External Mode, the user must dial *# 5.

3.15 POWER FAILURE

Description: In the case of power failure, the external line is automatically connected to an internal extension. During the power failure, the user will hear dial tone from the CO line after lift the handset and he can dial the external number now.

Model 108A, Example: CO 1 is connected to internal extension 801

Model 208A, 616A Example: CO 1 is connected to internal extension 801

CO 2 is connected to internal extension 802

Model 308A,312A,408A,416A,424A,432A,624A,632A Example:

CO 1 is connected to internal extension 801

CO 2 is connected to internal extension 802

CO 3 is connected to internal extension 803

3.16 MONITOR RECORDER ASSIGNMENT 3.16.1 MONITOR RECORD FUNCTION FOR SPECIFIC EXTENSION

Format: * 4 3 abc n #

Abc = extension number

n= 0 = monitor record clear

n= 1 = assign to monitor record

Description: Allows Voice Recorder automatically start to record desired extension as soon as the desired extension is used.

Example: Assign Ext.813 and Ext.817 as desired monitored record extensions.





- * Any extensions can be assigned as desired monitored record extension.
- * Allow only one extension can be recorded at the same time. When Ext.A is being recorded, meanwhile, Ext.B is used, but extension.B will not be monitored record until Ext.A is free.

3.16.2 CLEAR MONITOR RECORD FUNCTION FOR ALL EXTENSIONS

Format: * 4 3 #

Description: Allows the user to clear monitor record function for all extensions.

3.16.3 MONITOR TO RECORD CERTAIN EXTERNAL (CO) LINE

Format: * 4 4 a n #

a = CO line port number

n = 0 = monitor record clear

n = 1 = assign to monitor record

Description: Allows Voice Recorder automatically start to record desired external line when the desired CO line has been used.

Example: Assign CO 1 and CO 3 as desired monitored record external lines, the user must input * 44 11 # ==> input 31#, hang up after a Beep tone.

3.16.4 CLEAR MONITOR RECORD FUNCTION FOR ALL CO LINES

Format: * 4 4 #

Description: Allows the user to clear monitor record function for all CO lines

3.17 DOOR BELL & DOOR LOCK ACCESSORIES

3.17.1. DOOR BELL

Two-way communication

One-touch Calling

Night-light display

2 wire connection

Compatible with model 108A,208A,308A,316A



3.17.2.DOOR LOCK

Both Electronic Control & Manual Control Normal Key equipped

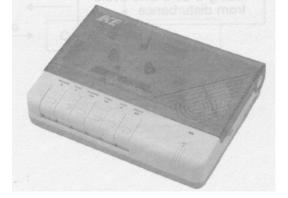
2 wire connection

Compatible with model 108A,208A,308A,316A



3.17.3 TELEPHONE RECORDER

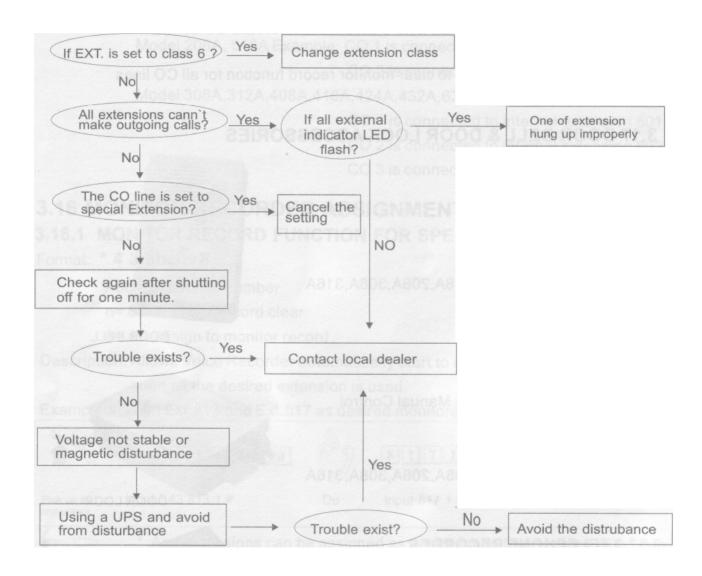
Auto Record when off-hookswitch
Auto Stop when on-hookswitch
Record & Play by normal tape



4 MAINTENANCE & TROUBLE SHOOTING

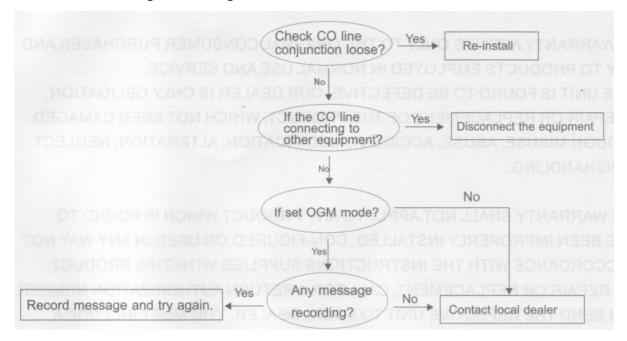
4.1 OUTGOING CALLS CAN'T BE MADE

- * Programmed to be in no CO line mode;
- * Call restriction class is 6:
- * CO line has been assigned to be exclusively access line to extension;
- * Extension hung up improperly;
- * CPU and internal data is disorder due to unstable power.



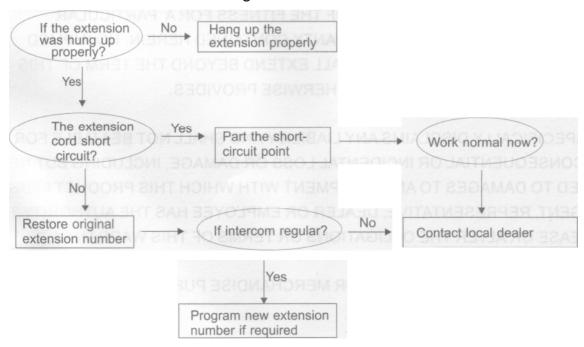
4.2 EXTERNAL CALLS CANT BE RECEIVED

- * The connection to CO line is loose;
- * CO line is connected to other equipment;
- * No message recording for Auto Attendant mode.



4.3 INTERCOM CANT BE MADE

- * Extension hung up improperly;
- * Extension number is wrong.



5 WARRANTY

WE WARRANT YOUR PRODUCT TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM THE DATE OF PURCHASING.

THIS WARRANTY APPLIES ONLY TO THE ORIGINAL CONSUMER PURCHASER AND ONLY TO PRODUCTS EMPLOYED IN NORMAL USE AND SERVICE.

IF THE UNIT IS FOUND TO BE DEFECTIVE, OUR DEALER IS ONLY OBLIGATION, TO REPAIR OR REPLACEMENT OF THE PRODUCT, WHICH NOT BEEN DAMAGED THROUGH MISUSE, ABUSE, ACCIDENT, MODIFICATION, ALTERATION, NEGLECT OR MISHANDLING.

THIS WARRANTY SHALL NOT APPLY TO ANY PRODUCT WHICH IS FOUND TO HAVE BEEN IMPROPERLY INSTALLED, CON-FIGURED,OR USED IN ANY WAY NOT IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED WITH THIS PRODUCT. FOR REPAIR OR REPLACEMENT, CALL FOR A RETURN AUTHORIZATION NUMBER, THEN SEND THE DEFECTIVE UNIT TO LOCAL DEALER. YOU MUST INCLUDE A LETTER WITH THE RETURN AUTHORIZATION NUMBER, DESCRIBING UNAMBIGUOUSLY THE WAY IN WHICH THE PRODUCT IS DEFECTIVE ALONG WITH A PROOF OF PURCHASE.

WE DO NOT WARRANT AND SPECIFICALLY DISCLAIMS ANY WARRANTY, WHETHER EXPRESS OR IMPLIED, OF THE FITNESS FOR A PARTICULAR PURPOSE OTHER THAN THE WARRANTY CONTAINED HEREIN. NO IMPLIED WARRANTY ON THIS PRODUCT SHALL EXTEND BEYOND THE TERM OF THIS WARRANTY UNLESS SUCH LAW OTHERWISE PROVIDES.

WE SPECIFICALLY DISCLAIMS ANY LIABILITY AND SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE, INCLUDING BUT NOT LIMITED TO DAMAGES TO ANY EQUIPMENT WITH WHICH THIS PRODUCT IS USED. NO AGENT, REPRESENTATIVE, DEALER OR EMPLOYEE HAS THE AUTHORITY TO INCREASE OR ALTER THE OBLIGATIONS OR TERMS OF THIS WARRANTY.

THIS WARRANTY IS ONLY VALID FOR MERCHANDISE PURCHASED DIRECTLY FROM OUR AGENT OR DEALER.